

Figure 1 STRUCTURE OF A GENE

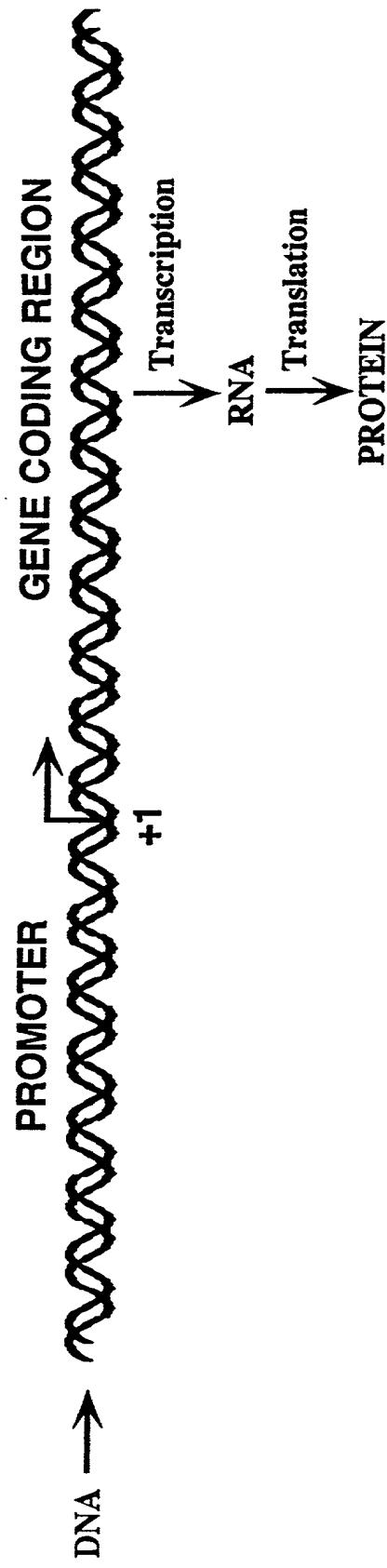
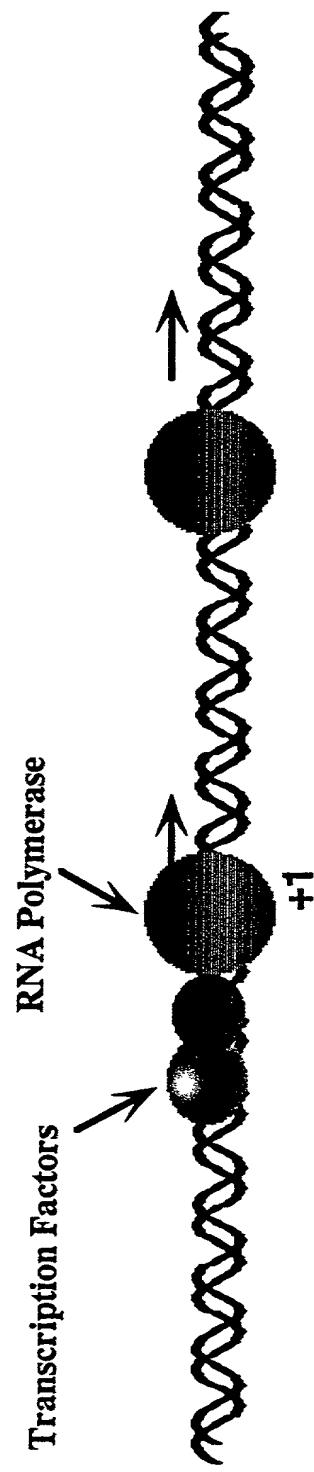


Figure 2 ACTIVE GENE



1. Transcription Factors and RNA Polymerase interact with promoter region
2. RNA Polymerase moves down the gene to read or "transcribe" the DNA coding sequence and produce mRNA

Figure 3 INACTIVE GENE (in Chromatin)

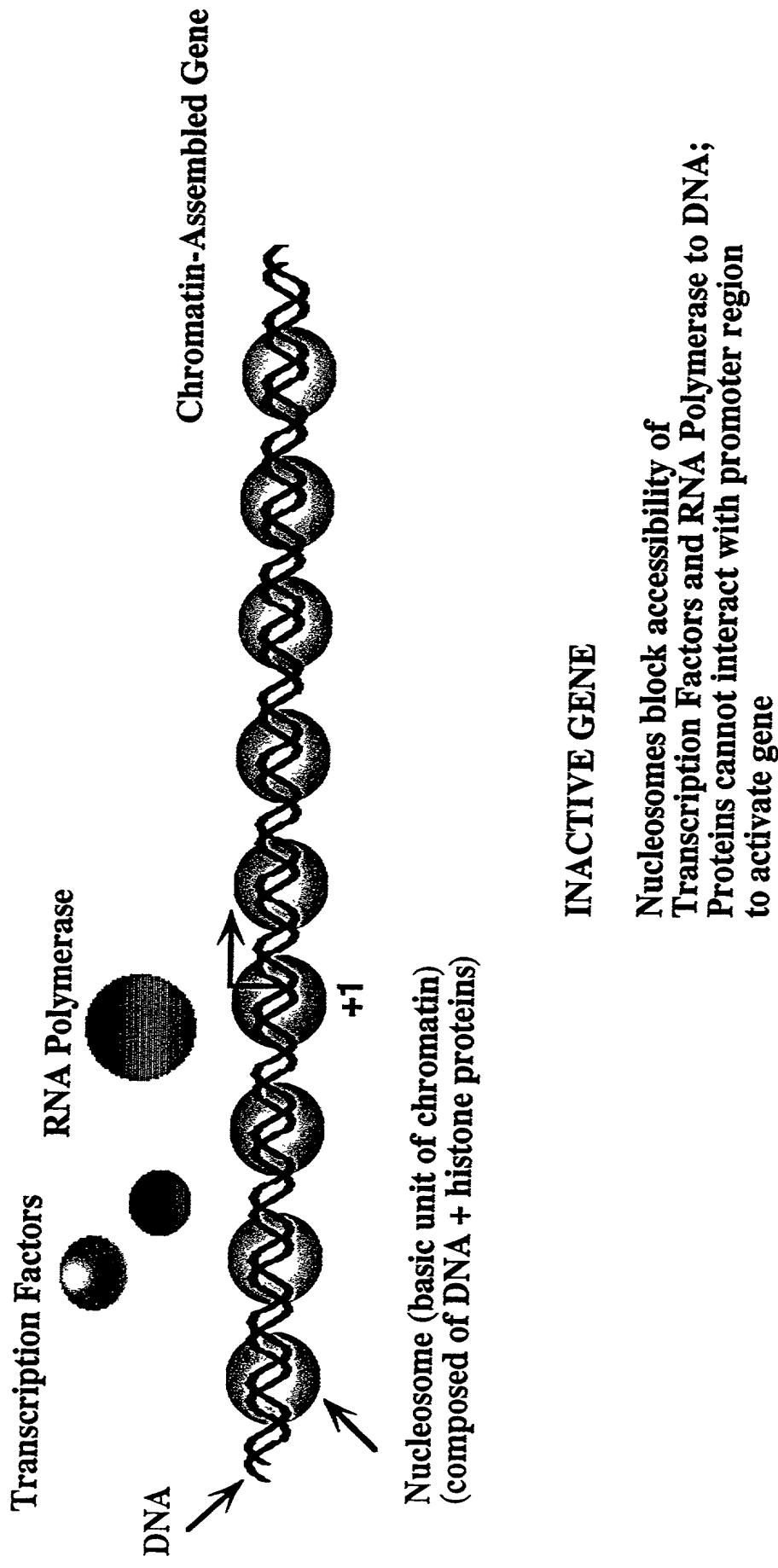
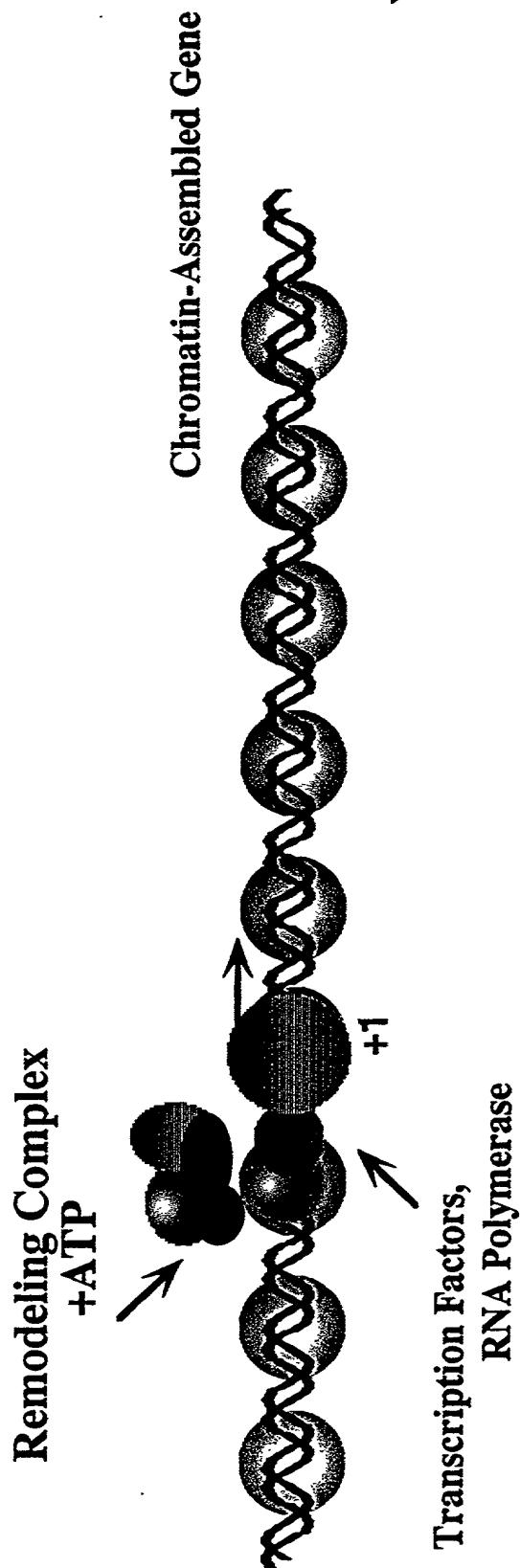


Figure 4 ACTIVE GENE (in Chromatin)



ACTIVE GENE

Remodeling Complex (SWI/SNF, etc.) is targeted by Transcription Factor and "loosens" nucleosomal structure to facilitate interaction of Transcription Factor and RNA Polymerase with promoter DNA which activates the gene.

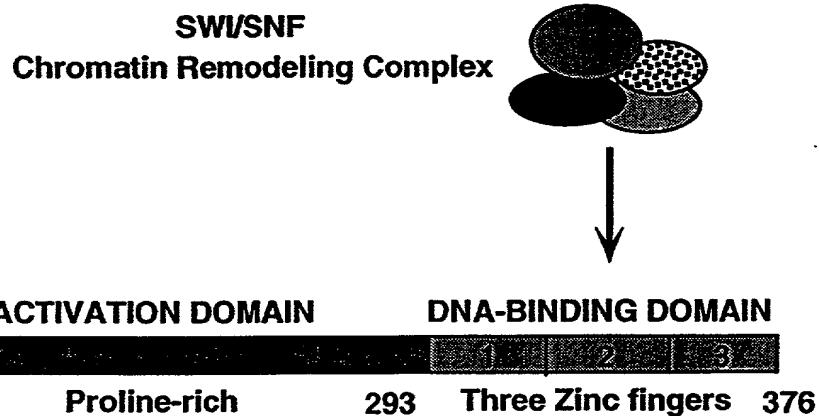


Figure 5

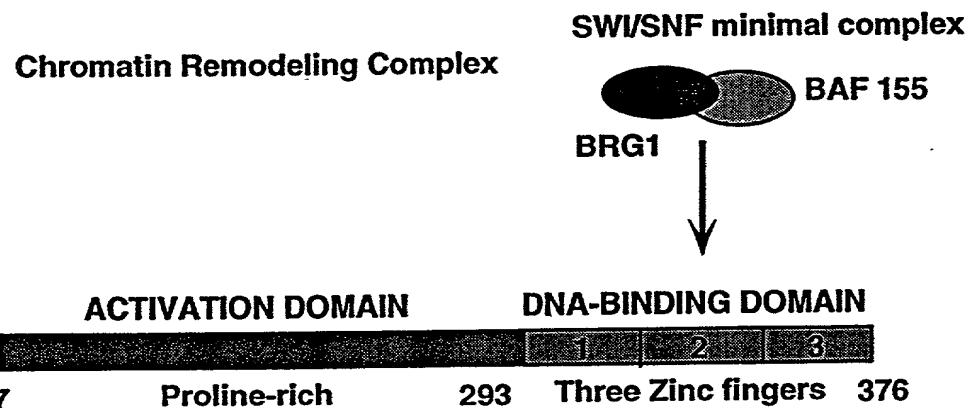
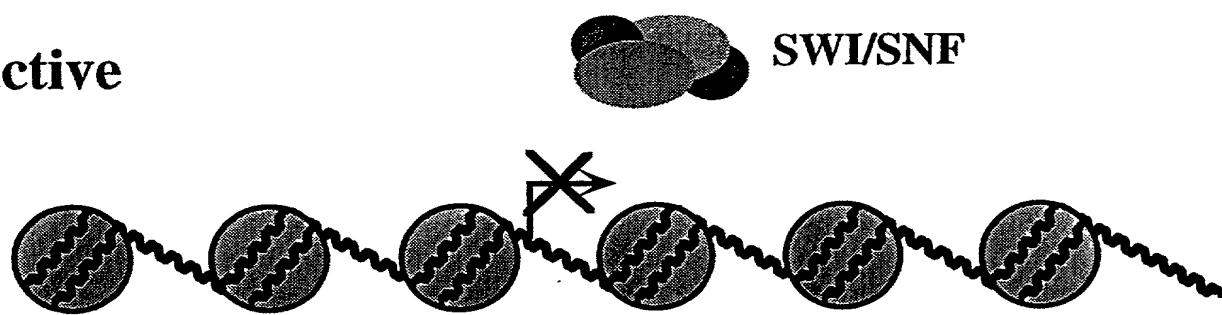


Figure 6

POSSIBLE MECHANISM OF SWI/SNF-DEPENDENT CHROMATIN REMODELING BY INTERACTION WITH ZINC-FINGER DNA BINDING PROTEINS

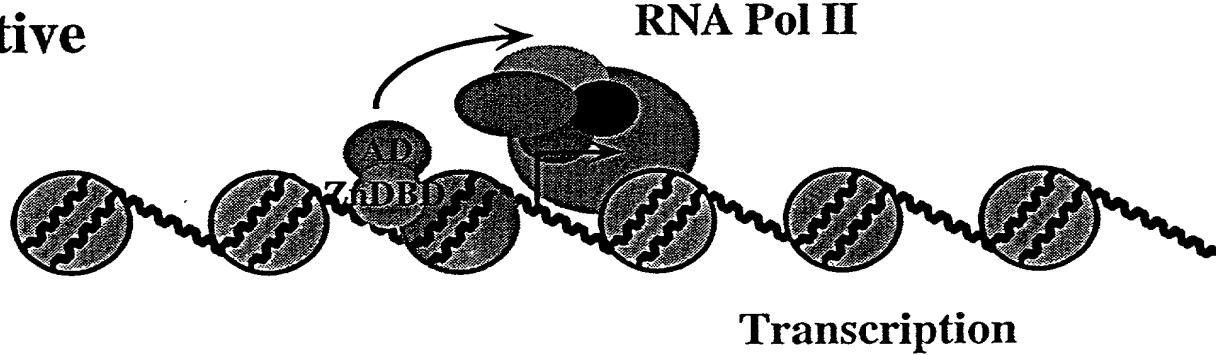
Inactive



Poised



Active



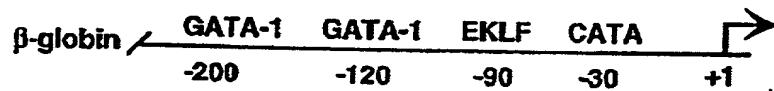


Fig 8

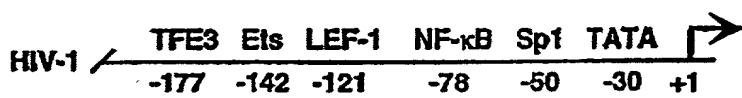


Fig 9

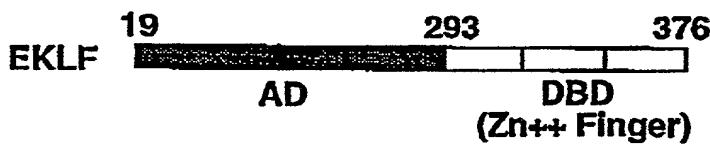


Fig 10